a forward-looking economic pricing methodology, known as Total Element Long-Run Incremental Cost ("TELRIC"), which sets prices for UNEs based on the "forward-looking costs directly attributable to the specified element, as well as a reasonable allocation of forward-looking common costs." <u>Line Sharing Order</u>, at ¶ 134, <u>quoting Local Competition</u>

First Report and Order at ¶ 682.

The FCC concludes that states should set the price for the new line sharing UNE in the same manner as they set prices for other UNEs, consistent with the TELRIC methodology. <u>Id.</u> at ¶ 134-135.⁶² According to the FCC, there are five types of direct costs that an ILEC potentially could incur in providing access to line sharing: loops; OSS; cross-connects; splitters; and line conditioning. <u>Id.</u> at ¶ 136.

In accordance with the Act and the <u>Local Competition First Report and Order</u>, the Department issued a decision in the <u>Consolidation Arbitrations</u>, 63 setting forth the model and inputs to be used by Verizon in carrying out its TELRIC studies to determine the prices to be

The FCC's TELRIC methodology was vacated and remanded by the Eighth Circuit Court of Appeals on July 18, 2000. <u>Iowa Utils. Bd. v. F.C.C.</u>, 219 F.3d 744 (8th Cir. 2000). On September 22, 2000, the Eighth Circuit granted the FCC's motion for partial stay of a portion of the Court's decision, which vacated 47 C.F.R. § 51.505(b)(1), pending the filing and ultimate disposition of a petition for certiorari with the Supreme Court. <u>Iowa Utils. Bd. v. F.C.C.</u>, No. 96-3321 (and consolidated cases). The Department has determined that it will maintain the status quo, which is TELRIC, pending either a higher court ruling overturning the 8th Circuit's findings or an FCC decision on remand. Therefore, the Department will follow TELRIC principles in setting recurring and non-recurring rates for line sharing.

Consolidated Arbitrations, D.P.U. 96-73/74, 96-75, 96-80/81, 96-83, 96-94-Phase 4 (December 4, 1996) ("Phase 4 Order").

charged for UNEs. The recurring and non-recurring UNE prices in Massachusetts were established in a series of decisions in this <u>Consolidated Arbitrations</u> docket.

A. <u>Line Qualification and Loop Conditioning</u>

1. Introduction

whether a particular loop will support, or is qualified for, xDSL services. Verizon's proposed tariff provides several options to determine whether a loop is qualified. Part B, Section 5.4.2.A⁶⁴ of the proposed tariff provides three means of making this determination:

(1) mechanized pre-qualification database;⁶⁵ (2) manual loop qualification;⁶⁶ and (3) engineering query.⁶⁷ The proposed tariff charge for the mechanized pre-qualification database

Prior to providing line sharing services, the CLECs and Verizon must determine

At the request of the Department, Verizon filed substitute pages for this section on August 16, 2000, to better match the information contained in its mechanized prequalification database. When the Department cites to this tariff section, the reference will be to the August 16 version.

According to the proposed tariff, the mechanized pre-qualification database provides the following information: total metallic loop length (including bridged taps, presence of load coils, presence of DLC facilities, presence of interferors, presence of digital single subscriber carrier, and qualification for ADSL/HDSL per Verizon standards. Part B, Section 5.4.2.A.1.

The proposed tariff indicates that the same information provided in the mechanized database will be made available through the manual loop qualification, but that a CLEC may request this latter process "where the mechanized loop qualification database is not available." Part B. Section 5.4.2.A.2.

According to the tariff, a CLEC may request information about a loop from Verizon's records beyond information supplied by either the database or the manual loop qualification. This loop information may include: length, number and location of bridged taps; number and location of load coils; location of DLC; or cable gauge at specific locations. Part B, Section 5.4.2.A.3.

is a recurring charge of \$0.65 per month per line. Part M, Section 2.5.4, Page 8. This recurring fee comprises three components: (1) the initial qualification charge of \$0.11, which is based on work time estimates; (2) an ongoing maintenance charge of \$0.36; and (3) an "additional cost component" of \$0.18 (Exh. VZ-MA-2, at exh. I, Workpaper 5). The tariff charge for a manual qualification is a non-recurring charge of \$113.67 (\$153.84 for expedited service). Part M, Section 2.5.4, Page 8. The proposed tariff charge for an engineering query is a non-recurring charge of \$147.91 (\$200.05 for an expedited query). Part M, Section 2.5.4, Page 8.

The results of the loop qualification process may indicate that a particular loop requires conditioning" (i.e., removal of load coils and bridged taps, or the addition of ISDN extensions) prior to its use for xDSL. According to the FCC, except in specific circumstances, ILECs are required to condition loops if necessary to enable CLECs to share a line, regardless of loop length. Line Sharing Order at ¶ 83.

Part B, Section 5.4.6 of Verizon's proposed tariff provides for the removal of load coils and bridged taps, and for the addition of ISDN extensions. Part B, Section 5.4.7.D summarizes when charges for these activities will be assessed, and Part M, Section 2.5.4, Page 9 of Verizon's proposed tariff sets forth the following non-recurring charges for these conditioning activities: \$910.35 for the removal of load coils for lines under 21,000 feet in length (\$1,177.39 for an expedited order); \$1,210.04 for the removal of load coils for lines under 27,000 feet in length (\$1,564.99 for an expedited order); \$250.60 for the removal of one bridged tap (\$324.11 for an expedited order); and \$609.92 for multiple bridged tap removal (\$799.83 for an expedited order).

Verizon's proposed tariff permits a CLEC to request the addition of ISDN electronics, so that a CLEC may provide service on loops that exceed 18,000 feet in length. Part B, Section 5.4.6.C. Verizon proposes a charge for both the electronics and labor of \$894.15 per loop (\$901.94 for an expedited order). Part M, Section 2.5.4, Page 9. Finally, in Part M, Section 2.5.4, Page 8, Verizon proposes a charge for the engineering work order that precedes both load coil and bridged tap removal of \$671.23 per loop (\$905.75 for an expedited order).

2. Positions of the Parties

a. Verizon

Verizon urges the Department to approve its proposed charges for loop qualification for folion sharing and stand-alone xDSL loops (Verizon Reply Brief at 16, citing Tr. at 565).

According to Verizon, its rates were developed using current work time estimates and labor rates, as well as Department-accepted cost factors (id. at 16-17, citing Tr. at 570-571).

Verizon argues that when CLECs benefit from the use of Verizon's database, it is only fair that they be charged for the development and maintenance of that database (Exh. DTE-BA-MA 1-18; Exh. DTE-BA-MA 1-50; Verizon Reply Brief at 18). Verizon notes that this database supports both its xDSL retail service and the provision of ADSL- and HDSL-compatible loops to CLECs (Verizon Brief at 48).

Verizon argues that the FCC permits it to charge for conditioning loops (Exh. VZ-MA-3, at 49). According to Verizon, the FCC acknowledged that when load coils and bridged taps are present on the copper loops, loop conditioning is required and the ILEC is entitled to recover the costs to remove the load coils to provision line sharing (Verizon Reply Brief at 8-9, citing Line Sharing Order at ¶ 148). Verizon contends that the CLECs' position that a

fiber-based network must be used for a forward-looking cost study for line sharing is "untenable because it would effectively negate the FCC's requirement that the ILECs be allowed to recover certain costs associated with providing line sharing" (id. at 8, citing Tr. at 594).

Verizon disagrees with the claim made by Covad and Rhythms that bridged taps and load coils can be removed from multiple lines simultaneously (id. at 20). According to Verizon, loop conditioning work is "rarely requested for multiple loops at the same splice point and at the same time" (id.). Verizon argues that it would have to accumulate line sharing orders in large batches and only perform loop conditioning work when it received a certain number of orders to meet this CLEC demand and that this practice would be discriminatory (id.).

Verizon also disputes the amount of work CLECs claim is involved in loop conditioning (id. at 19). According to Verizon, once a load coil is found, a "construction job" is requested to remove the coil (id. at 19, citing Tr. at 145). The complexity of this job, Verizon asserts, depends on whether the loop is underground, aerial, or a combination thereof (id.). Finally, Verizon argues that there is no duplication of the functions in developing the loop qualification and the loop conditioning charges, as some CLECs contend (id.). According to Verizon, the "engineering work order" entails discrete activities performed by a different division within Verizon than the division that performs work for the "engineering query process" (id.).

b. Attorney General and CLECs

The Attorney General contends that many of the charges set forth in Verizon's proposed tariff were based on collocation activities and not line sharing activities (Attorney General Brief at 5). The Attorney General argues that basing labor rates and costs on non-line sharing activities results in over-inflated costs (id. at 6). The Attorney General asks the Department to reject Verizon's rates and, instead, to impose interim rates that would be subject to adjustment, pending the completion of more appropriate cost studies (id. at 7). The Attorney General proposes the adoption of the Rhythms and Covad pricing proposal, which calls for an across-the-board 50 percent reduction in tariff charges pending the completion of additional cost studies by Verizon (id.).68

Several CLECs oppose Verizon's proposal to assess a fee for a CLEC's use of the mechanized pre-qualification database (Rhythms Brief at 77; DBC Brief at 28). Rhythms argues that since Verizon has been

permitted to base the monthly recurring charges for UNE loops on a forward-looking network design that assumes ubiquitous deployment of fiber feeder and DLC equipment that does not involve any range-extending equipment, it is inappropriate now to permit [Verizon] to base charges applicable to CLECs in connection with DSL services on a different all-copper network design assumption. To do so is a violation of TELRIC principles and will result in an overstatement of the total costs attributable to a competitor's purchase of unbundled DSL-capable loops.

The Attorney General's request for a 50 percent reduction in Verizon's proposed rates applies to all of its rates applicable to line sharing. Therefore, it is not necessary for the Department to repeat the Attorney General's position on rates throughout the remainder of this Order.

(Rhythms Brief at 79-80, citing Exh. RLI/CVD-1, at 184-185). Specifically, Rhythms objects to the \$0.65 recurring charge because it argues that, "a forward looking cost study would assume that [CLECs] have non-discriminatory access to the . . . LFACS database and other databases relevant to loop qualification, because that is the most efficient method for providing CLECs with loop [qualification] information" (Rhythms Reply Brief at 43).

Rhythms also contends that the costs of populating and maintaining these databases have traditionally been, and continue to be, recovered in other recurring rates (id.).

Similarly, DBC argues that since Verizon already provides voice service on a shared loop, it collects charges from customers and long-distance carriers that "fully fund the costs associated 5 with providing that loop, including the costs of maintaining its databases" (DBC Brief at 28, citing Exh. DBC-1, at 12-15). Finally, Rhythms argues that it is inappropriate to charge CLECs for the development of a database originally designed to benefit Verizon (Rhythms Brief at 78). Rhythms and Covad argue that if Verizon is allowed to charge anything for loop qualification, it should only be allowed to charge \$0.04 cents per loop, which is based on a 20-year amortization of the loop (Tr. at 602). DBC states that a recurring charge is inappropriate for this service because the loop data are of no further use to the CLEC once the loop has been qualified for line sharing (DBC Brief at 28).

The CLECs also oppose Verizon's proposed manual loop qualification and engineering query charges (DBC Brief at 27-29; Rhythms Brief at 80; MA CLEC Alliance Brief at 12-13). The MA CLEC Alliance argues that the FCC directed ILECs to provide CLECs with access to loop information so that CLECs could determine for themselves whether a loop satisfies the prerequisites for the service the CLEC intends to provide (MA CLEC Alliance at 12).

Therefore, the MA CLEC Alliance argues that the ILEC should be compensated only for providing such information to the CLEC in an electronic format, and not for costs incurred by the ILEC in interpreting such information for the CLEC (id.). Rhythms argues that the mechanized loop qualification process is the most forward-looking, efficient process, and, therefore, consistent with TELRIC principles, the CLECs should not be charged for manual loop qualifications and engineering queries (Rhythms Brief at 90).

DBC notes that the first step of Verizon's manual loop qualification is a check of LFACS (DBC Brief at 28). According to DBC, the only reason this LFACS inquiry is needed is because Verizon has refused to provide direct access to databases that would allow CLECs to make the inquiry themselves (id.). Direct CLEC access to this information would eliminate the need for this "manual" qualification and the associated non-recurring charge (id.). Rhythms and Covad have proposed a monthly recurring charge of \$0.04 for all line qualification expenses (Rhythms Brief at 79).

In connection with the CLEC arguments about why the Department should reject Verizon's proposed loop qualification charges, Rhythms argues that Verizon's use of all copper in the feeder to develop non-recurring conditioning charges is inappropriate because of Verizon's assumption of an all fiber network for loop charges (id. at 83). According to Rhythms, the Department has indicated that "it believes in the need to use consistent network assumptions in developing recurring and nonrecurring costs" (id. at 83-84, citing Phase 4-L Order at 19-21). Rhythms argues that the Department should disallow charges for load coil and bridged tap removal because, in a forward looking environment, these pieces of equipment would not be present on least-cost, most efficient fiber loop networks (Exh. RLI-CVD-1, at

124-126; Rhythms Brief at 84). Furthermore, Rhythms argues that it is assumed that the costs associated with conditioning are "built-in" to the higher, recurring costs that are associated with UNE loops (Exh. RLI-CVD-1, at 130; Rhythms Brief at 83).

According to the MA CLEC Alliance, the 100 percent fiber feeder network construct under which the Department established prices for UNE loops was adopted at the insistence of Verizon over the united opposition of the CLECs (MA CLEC Alliance Reply Brief at 1-2, citing Phase 4-L Order). The MA CLEC Alliance argues that having won the right to charge loop prices based on an all fiber feeder assumption, Verizon now seeks to recover costs that are not incurred in a fiber feeder network (id. at 2). The MA CLEC Alliance notes that the Department has recognized the need for methodological consistency in the administration of cost-based pricing (id.). The need for such consistency, the MA CLEC Alliance argues, is demonstrated by turning the methodological tables: if CLECs had prevailed on the issue of the appropriate network assumption for costing loops, CLECs would now not be able to oppose recovery of loop conditioning, qualification, and testing costs required to provide xDSL service over copper loops (id. at 2-3). Moreover, the MA CLEC Alliance contends that if loop prices were determined under an all copper network assumption, Verizon would certainly not now offer fiber feeder, DLC loops without extra charges for the electronics and other equipment that is not necessary in an all-copper environment (id. at 3).

If the Department permits Verizon to charge for xDSL conditioning, Rhythms argues that the Department should ensure that these charges reflect the least cost, most efficient methods and procedures (Rhythms Brief at 85). Specifically, Rhythms argues that Verizon overstates the amount of time required to remove load coils and bridged tap and fails to

calculate the costs for de-conditioning multiple loops at a time, a practice that is technically feasible and efficient (<u>id.</u> at 85-86). DBC argues that Verizon's proposed conditioning charges must be based on the finished length of the loop, measured after the bridged taps have been removed (DBC Brief at 33). To do otherwise, DBC contends, would permit Verizon to charge substantial and unpredictable conditioning charges for loops that should not need to be conditioned (<u>id.</u> at 33-34).

Similarly, the MA CLEC Alliance argues that the Department should reject Verizon's proposed charge for the addition of ISDN repeaters because this cost, like Verizon's other loop conditioning costs, is already recovered by Verizon in the charge for loops (MA CLEC Alliance Brief at 15, citing Exh. RLI/CVD-1, at 233-237). According to the MA CLEC Alliance, Verizon's existing, forward-looking, cost-based, recurring charge for loops should already have included the cost for required electronics, irrespective of loop length (id.). The MA CLEC Alliance also argues that the cost of ISDN repeaters should be recovered, if at all, through a recurring loop charge instead of a non-recurring charge because such costs represent a capital addition to loop plant and ISDN electronic equipment constitutes plant that can be removed and reused to serve other customers (id.). Finally, the MA CLEC Alliance contends that Verizon failed to provide adequate cost support for its non-recurring ISDN electronics charge, relying instead on alternative investment scenarios with significant cost differences, without any explanation and without providing any support for labor rates or time estimates (id. at 15-16).

3. Analysis and Findings

The Department must decide whether the loop qualification and conditioning charges proposed by Verizon conform to TELRIC principles. First, the Department must determine whether these charges should be allowed at all. As mentioned above, the Department has held that a cornerstone of the TELRIC methodology is the use of "a reconstructed local network [that] will employ the most efficient technology for reasonable foreseeable capacity requirements." (Phase 4 Order, at 14, quoting Local Competition First Report and Order at ¶ 685). We determined previously for recurring UNE rates that "the appropriate forwardlooking technology was a network with 100 percent fiber feeder in the loop portion of the network." Phase 4-L Order at 17, citing Phase 4 Order (emphasis added). Specifically, the Department found that "the structure of the [Verizon] model [that is, all fiber in the loop] provides a good representation of a reconstructed local network that will employ the most efficient technology for reasonably foreseeable capacity requirements." Id., citing Phase 4 Order at 16-17. In that case, Verizon had proposed to use a network assumption of 100 percent fiber feeder in the loop portion of the network, and the Department approved that proposal over the objections of several CLECs. Phase 4 Order at 15-17.

Subsequent to the Department's decision on recurring UNE rates, Verizon developed a cost study for calculating non-recurring costs which used a network assumption of 90 percent copper feeder in the loop portion of the network. The Department rejected this inconsistency

The feeder portion of the network is the trunk line leading back to the central office from the feeder distribution interface, which is where the distribution plant (i.e., line branching out to the subscriber) meets or interfaces with the feeder. <u>UNE Remand Order</u> at ¶ 206.

in its Order on non-recurring costs, stating "there is no reason to apply a different set of technology assumptions to the development of [non-recurring charges] from recurring charges." Phase 4-L Order at 19. The Department stated that "we agree with AT&T that this assumption invites undue selectivity or 'cherry-picking,' i.e., producing the higher recurring costs associated with all fiber feeder and the higher [non-recurring charges] associated with a network composed primarily of copper feeder." Id. In this case, by filing cost studies assuming use of copper feeder cable in the loop for its line sharing charges, 70 Verizon is asking the Department again to use network assumptions that are not consistent with the assumptions used by the Department in earlier Department Orders on the development of TELRIC rates.

For the reasons stated by the Department in rejecting this inconsistency between recurring and non-recurring cost studies in our <u>Phase 4-L Order</u>, we again reject the use of copper feeder in calculating UNE rates for line sharing. Therefore, the Department rejects the tariff charges proposed by Verizon-MA for the mechanized loop database, manual loop qualifications and engineering queries, as well as any charges for loop conditioning, including adding ISDN electronics.

Loop qualification and loop conditioning would not be necessary in a network with all fiber feeder should not be necessary. The presence or absence of load coils or bridged taps, the length and gauge of copper cable, or a determination of whether the loop is on DLC are all immaterial in a network with 100 percent fiber feeder. Verizon does not dispute this conclusion, but instead argues that "the relevant costs should take into account the network that

See Exhibit VZ-MA-2, at 60.

is being used," and that it is "irrational to develop these costs on a network design . . . that was assumed for the pricing of different types of loops, such as 2-wire analog loops as a surrogate for xDSL loops, considered in the Consolidated Arbitrations proceeding." (Verizon Reply Brief at 7). In so arguing, Verizon ignores our findings in the Phase 4 Order and the Phase 4-L Order where we stated that the goal of the TELRIC methodology is "to model a forward-looking telecommunications network" (Phase 4-L Order at 19), not the network in place today.

We concede the difficulty in reconciling pricing for a network element that in its very nature is based on the existence of copper plant with a network design that assumes 100 percent fiber feeder, but this difficulty flows directly from Verizon's own proposal in the earlier docket to use 100 percent fiber feeder in its TELRIC cost study. We note, however, that even in a network with 100 percent fiber feeder, there is still copper plant running from the DLC to the customer's premises. In such an environment, line sharing takes place only over the copper plant and does not require any line qualification or conditioning. That environment is the forward-looking telecommunications network that we use in this case to determine that Verizon shall not charge for any line qualification or conditioning.

Concerning Verizon's argument that the FCC has explicitly allowed it to recover its costs for line qualification and conditioning, we find that this is not a correct interpretation of the FCC's Order. We believe that the FCC's directives related to recovery of loop qualification and conditioning costs are only relevant to states that have assumed copper feeder for purposes of calculating TELRIC. The FCC has not directed states to assume copper feeder in calculating TELRIC, and, without such a directive, it would be illogical for the FCC to

mandate the recovery of costs that are relevant only to a network assumption that may not have been approved in a particular state. It would be inappropriate and inconsistent for the Department to allow Verizon to base its loop rates on the costs of a fiber feeder, which may be greater than the costs of copper feeder in that context, while it bases its line sharing rates on the costs of a copper feeder, which are greater than the costs of fiber in the context of line sharing. If the FCC in fact were to require the Department to assume the use of copper feeder for calculating TELRIC for line sharing, we would allow Verizon to charge for both loop qualification and loop conditioning, but we also would have to direct Verizon to recalculate its loop costs in order to maintain consistency among our various TELRIC analyses. Otherwise, Verizon would be able to tack back and forth between different network assumptions based solely on whether the network assumption produced higher rates for Verizon in each instance.

B. Wideband Testing System Charge

1. <u>Introduction</u>

Verizon's proposed tariff includes a monthly charge of \$1.90 per line charge for WTS, a service described above in Section III.F of this Order. See Part M, Section 2.19.1, Page 32. The Department already decided that Verizon's WTS should be optional, and the issue for discussion here is whether the proposed recurring charge for this optional service is reasonable.

2. Positions of the Parties

a. Verizon

Verizon disputes the CLEC argument that its WTS rate should be reduced to reflect cost savings Verizon gained from a partial contract refund from Alcatel (Verizon Reply Brief

at 21 n.15). According to Verizon, the Alcatel refund issue involved a completely different retail service testing system (id.). Specifically, Verizon contends that the \$11.2 million Alcatel refund relates to Alcatel's failure to build the functionality of the MTAU into each Alcatel DSLAM (id.). Since, according to Verizon, CLECs will provide their own DSLAMs, this refund has "nothing to do with the costs for testing to provide the wholesale service using the Hekimian system . . . Moreover, Verizon MA never purchased the Alcatel system, so there are no associated costs that [Verizon] is seeking to recover, as Rhythms erroneously alleges" (id., citing Rhythms Brief at 74). Verizon asserts that there is no relationship between these two costs, and Rhythms' argument is an "apples to oranges" comparison (Verizon Brief at 61).

Verizon also argues that its charge of \$1.90 is based on cost studies for physical dispatches responding to problems in the data portion of a digital or shared loop (Verizon Reply Brief at 21). According to Verizon, these dispatch charges would be avoided if Verizon incorporates WTS into its line sharing arrangements (id.). Also, contrary to the arguments made by several CLECs, the WTS system implemented by Verizon excludes the optional retail-oriented modules offered by Hekimian, and, instead, focuses on meeting the trouble-isolation requirements of a wholesale service provider (id. at n.17, citing Tr. at 597-598). Finally, Verizon argues that its Hekimian test system includes a variety of functions, but that only those functions that are relevant to testing in a wholesale, line sharing environment are reflected in Verizon's cost study (Verizon Brief at 62).

b. CLECs

According to Covad, there is no record evidence to support Verizon's claim that the additional costs associated with implementing Verizon's WTS would be offset by reduced

maintenance dispatch costs (Covad Brief at 25). Covad argues that Verizon has failed to submit a cost study in this regard but, rather, has provided a cost-benefit analysis of the use of WTS with Verizon's retail xDSL service offering (id. at 25-26, citing, Exh. RLI/CVD-60). Covad contends that the Department should not apply the conclusions of Verizon's retail business case to this wholesale pricing proceeding because, among other reasons, there is no evidence that the maintenance dispatch requirements of Infospeed are equivalent to requirements for services to be offered by CLECs (id. at 26).

Rhythms agrees with Covad on the lack of record evidence on dispatches and disputes Verizon's argument that the Alcatel refund is inapplicable to Verizon's proposed rate for WTS (Rhythms Reply Brief at 53). According to Rhythms, the Alcatel refund has "everything to do with the costs for testing that [Verizon] proposes to recover from CLECs through the mandatory wideband test charge" (id.). Rhythms contends that far from being forward looking and efficient, Verizon's WTS is a temporary stopgap, deployed to solve a problem with Alcatel (Rhythms Brief at 73). And, as a result of Alcatel's failure to deliver DSLAMs with the integrated MTAU to Verizon, Alcatel paid Verizon a refund of \$11.2 million (id.). According to Rhythms, the WTS rate would be reduced to \$1.10 per month if the Alcatel refund was incorporated into the cost study (Rhythms Brief at 76).

Rhythms also argues that Verizon incorrectly applies the Engineer, Furnish and Install ("EF&I") Factor to investment in developing this rate element (id. at 74). Because of Verizon's use of this factor and other Verizon errors, Rhythms recommends that the Department further reduce this rate by 50 percent, to \$0.55 (id. at 76).

3. Analysis and Findings

According to Verizon, there are two components to wideband testing. There is Layer 1 testing, which looks at the "physical health" of the loop to determine, among other things, whether a loop has bridged taps and interferers on it, and whether it has continuity⁷¹ (Tr. at 597, 665). Yerizon states that there are at least two other layers associated with wideband testing, Layers 2 and 3 (Tr. at 597, 664). Layer 2, according to Verizon's witness, is normally referred to as the private virtual circuit. Layer 2 testing can be performed through a test head⁷³ or it could be integrated into the DSLAM (Tr. at 667). This testing monitors the data side of the loop, related to transmission and protocol layers⁷⁴ (Tr. at 597). According to 'Verizon, to perform Layer 2 testing a carrier would need an element management system that "looks at the data channel, sees what the connectivity on the pipe is, . . . look[s] at the DSLAM, [and] have it sync up with the DSLAM. It might even be able to do service assurance and set up TCP/IP addresses " (Tr. at 668).

Continuity is an uninterrupted electrical path. See Newton's Telecom Dictionary, 15th Ed. 1999, at 206.

In response to an information request, Verizon stated that its Hekimian wideband testing equipment provides the following information: "POTS supervision CO [central office] Noise, Loop Noise, Dial Tone, Loop Wiring, ADSL Signal, and ATU-R [ADSL Terminal Unit - Remote] Detection" (Exh. RLI/CVD-71).

A Verizon witness described a "test head" as a "test box," which does the physical testing and which "electronically map[s] to the correct cable and pair" (Tr. at 688).

Generally speaking, protocols allow like devices to communicate with each other by providing a common language and set of rules. Devices communicate over the Internet using a suite of protocols called TCP/IP (transmission control protocol/Internet protocol). Annabel Z. Dodd, <u>The Essential Guide to Telecommunications</u> (1998).

Verizon's witness testified that the Hekimian system that it purchased to perform wideband testing is capable only of Layer 1 testing (Tr. at 665). Verizon also testified that its data affiliate will use additional functionality to do Layer 2 and 3 testing, and "that's what the credits . . . from Alcatel were for, because [Alcatel] didn't build [the Layer 2 functionality] into [its] DSLAM " (Tr. at 597). This point was reasserted later during this hearing when the Verizon witness confirmed that "Layer 2 testing can be either independent or it can be integrated into the DSLAM, but it is not Layer 1 testing " (Tr. at 667). Based upon the testimony of Verizon's witness, which, but for conclusory statements made in briefs, has not been rebutted by the CLECs, we agree with Verizon that the \$11.2 million refund from Alcatel is related to Layer 2 (and, possibly, higher), not Layer 1, testing, which is the subject of Verizon's proposed charge for WTS. Therefore, it would not be appropriate to direct Verizon to factor this refund into its proposed WTS rate.

Finally, as mentioned above in Section III.F, Verizon argues that if the Department determines the WTS should be optional and not mandatory, Verizon would seek to file a revised tariff, containing a higher rate to reflect this directive. Verizon may propose a different rate, incorporating the Department's findings related to this service being optional, in its compliance filing. However, the Department agrees with the CLECs that, unless Verizon can demonstrate that the dispatch rate for CLEC-provided xDSL service is comparable to the dispatch rate for Verizon's retail xDSL service, it would be inappropriate to factor the latter dispatch rate into the WTS charge.

C. Cooperative Testing

1. Introduction

Verizon's proposed tariff contains a non-recurring charge of \$33.81 per loop (\$45.68 for an expedited order) for cooperative testing. Part M, Section 2.5.4, Page 9. Cooperative testing is required to be performed on loops that are being provisioned for CLECS by Verizon (Exh. VZ-MA-2, at 45). This testing occurs on the day the loop is to be provided to the CLEC by Verizon and ensures that the line was properly provisioned (id.). The test consists of the following steps: (1) providing a "short," i.e., grounding both sides of the cable pair; and (2) removing the short so that the CLEC can perform its diagnostic test (Exh. VZ-MA-2, at 45; Exh. VZ-MA-4, at 70). The final test is for the CLEC to provide a "tone" on the loop (Exh. VZ-MA-2, at 45). Under the proposed tariff, cooperative (or continuity) testing will be performed at the request of a CLEC. Part B, Section 5.4.5.C. The cooperative testing charge is also applicable to stand-alone xDSL loops (Exh. DTE-BA-MA 2-13).

2. Positions of the Parties

a. Verizon

Verizon contends that its cooperative testing tariff charge was properly derived using a TELRIC-consistent cost analysis (VZ-MA-4, at 70). Specifically, Verizon states that actual work time estimates were used to derive the proposed rates (id.). According to Verizon, its rate of \$33.81 was calculated by multiplying its labor rates for wiring, provisioning and field installation by the approximately 45 minutes it argues is required to perform the cooperative test (Exh. VZ-MA-2, at exh. III, section 76, Pages 3, 5, 7, 8).

b. CLECs

The MA CLEC Alliance urges that the Department reject Verizon's proposed cooperative testing charge (MA CLEC Alliance Brief at 14). According to the MA CLEC Alliance, the cooperative testing process was created in the New York collaborative proceedings because of the large number of non-qualified loops erroneously provisioned by Verizon-New York (id.). Until Verizon can demonstrate that it is not responsible for the predominant share of problems that occasion the need for cooperative testing, the MA CLEC Alliance argues that it is unfair to impose charges on CLECs beyond the costs they already incur as a consequence of Verizon provisioning problems (id. at 14-15, citing Exh. RLI/CVD-1, at 231).

Covad argues that it requested Verizon to engage in cooperative testing last year because an "unacceptably high percentage of the loops that Verizon delivered did not work" (Covad Brief at 30). According to Covad, Verizon should not be permitted to assess a cooperative testing charge because this testing would not be necessary if Verizon could properly deliver an xDSL loop (id.). In addition, Covad contends that Verizon's charge amounts to CLECs paying both parties' costs for testing that Verizon's witness indicates is "mutually beneficial" (id., citing Tr. at 688). If the Department does not reject Verizon's proposal, Verizon will have little incentive to improve its loop provisioning performance, especially if it can increase its competitors' costs at no cost to itself (id. at 30-31, citing Exh. RLI/CVD-1, at 230).

3. Analysis and Findings

The Department agrees with Covad that it is inappropriate to permit Verizon to levy a "cooperative testing" charge on CLECs, which is based on costs that are caused by provisioning difficulties experienced by both Verizon and CLECs for stand-alone xDSL loops (Tr. at 132, 217, 688-690). The record shows that CLECs already incur their own cost for the cooperative test. Moreover, the record is clear that Verizon believes such testing is "mutually beneficial"; therefore, Verizon should share in the cost of cooperative testing by absorbing all of its own costs associated with this test, as CLECs do (see Tr. at 688). Finally, the Department agrees that shifting the costs of this test to CLECs relieves Verizon of an incentive to improve its loop performance. Consequently, the Department rejects Verizon's proposed tariff charge for cooperative testing.

D. Collocation Augmentation and Engineering Implementation Charges

1. Introduction

Verizon proposes an application augmentation fee of \$1,500 for both Option A (in which a CLEC owns and maintains a splitter in its collocation cage) and Option C (in which the splitter is placed on a relay rack in Verizon's central office space and is maintained by Verizon) arrangements (Exh. VZ-MA-3, at 34; Exh. VZ-MA-4, at 57). Part E, Section 3.5.2A.3. Verizon also proposes an engineering implementation tariff charge to cover the engineering expenses (e.g., site-surveys, cabling measurements) associated with this augmentation (Exh. VZ-MA-3, at 34). Verizon's proposed non-recurring engineering implementation tariff charge is \$1,453.09. Part E, Section 3.5.3.C.

2. Positions of the Parties

a. Verizon

Verizon argues that the work activity required for the initial formation of a collocation area within a central office is identical to that required for augmentations for line sharing arrangements (Exh. VZ-MA-3, at 21; Exh. VZ-MA-3, at 34; Tr. at 590-591; Verizon Reply Brief at 13). According to Verizon, this work activity includes: (1) processing an application; (2) setting up accounts; (3) site-surveying the central office; (4) determining space requirements; (5) buying equipment and supplies; (6) updating systems to include new inventory and locations; (7) cabling run planning; and (8) scheduling workers (Exh. VZ-MA-4, at 34; Tr. at 382-383). Verizon argues that the simplification of the application form for splitters referenced by several CLECs was performed for CLEC convenience only, and not because the nature of the underlying work requirements had decreased (Exh. VZ-MA-4, at 56-57; Verizon Brief at 67-69).

Verizon also argues that unless spare cables sought to be recycled by CLECs are organized into binder groups, have test access units, and do not create interference problems if used for data services, the CLEC-suggested option of recycling existing cable for splitter connections would entail additional costs or would not be available at all (Verizon Reply Brief at 14-15). Unless prior planning and preparation by the CLECs obviate the need for cabling rearrangements when line sharing is introduced, Verizon argues, the collocation augmentation and implementation charges are valid and should apply (id.).

b. CLECs

The CLECs maintain that the augmentation and engineering activities required for line-sharing do not warrant the same tariff charges that are in place for collocation augmentation and engineering activities (Exh. RLI/CVD, at 173; Tr. at 324-3; DBC Brief at 30; Rhythms Brief at 101-102). The CLECs argue that Verizon has not shown how processing splitter applications would be as costly as other collocation augmentations (Rhythms Brief at 101; Vitts Brief at 11-12; Covad Brief at 31; Rhythms Reply Brief at 54). Instead, the CLECs argue that Verizon's augmentation and engineering costs related to line-sharing are overstated, and Verizon should develop new rates based strictly on line-sharing specific activities (Tr. at 585; Shythms Brief at 99-102; Covad Brief at 31). In the interim, the CLECs argue that the Department should approve a 50 percent reduction in the rates proposed by Verizon, subject to true-up (Tr. at 585; Rhythms Brief at 99-102; Rhythms Reply Brief at 54).

The CLECs further argue that if a CLEC has spare cabling coming into its collocation arrangement, it should be able to use that cabling without applying for a collocation augmentation, conducting additional engineering, and incurring additional charges (Rhythms Brief at 100-101). The CLECs urge the Department to follow the holding of the NYPSC, which did not allow collocation augmentation fees when a CLEC uses existing cabling (id. at 101). The CLECs further argue that because Verizon-NY streamlined its collocation application form for splitters, Verizon-MA likewise is able to simplify the splitter application process (Vitts Brief at 11-12; Rhythms Reply Brief at 54).

3. Analysis and Findings

Consistent with the Department's findings in Section III.E.2 above, the Department directs Verizon to submit a line sharing-specific cost study for its proposed non-recurring application augmentation and engineering implementation charges. We determined earlier in this Order that the work activities that Verizon must perform to provision an augmentation request are not as numerous as those required to provision a new collocation arrangement (see pages 59-73, above). Therefore, we deny Verizon's proposed charges.

E. Splitter Installation Charge

1. Introduction

If the CLEC does not wish to install its own splitter, the CLEC retains the option of having Verizon install the splitter in an Option C environment. Verizon has proposed a one-time installation charge of \$1,215.00 applicable to Option C arrangements. Part M Section 5, Page 6. According to Verizon, this figure is derived by multiplying the total investment of the splitter (cost and labor) by the EF&I factor (Verizon Brief at 57-58). Verizon states that this factor, in turn, is derived by the calculation of operating expense factors, including maintenance and directly attributable joint and common cost factors (Exh. VZ-MA-2, at 55).

As mentioned above, in Option A, the splitter is located within the CLEC's collocation space, and the CLEC is required to do its own installation work (Verizon Brief at 57).

The numerical value of the EF&I factor is 0.45 (Exh. VZ-MA-2, at exh. I, Workpaper 4).

2. <u>Positions of the Parties</u>

a. Verizon

Verizon claims that its cost methods for splitter installation are proper (Verizon Brief at 57 n.47; Verizon Reply Brief at 9). Verizon argues that the installation charge is intended to recover all EF&I costs for the splitter equipment, which includes vendor engineering, Verizon engineering, transportation, warehousing, Verizon installation, and acceptance testing (Verizon Brief at 57). Verizon claims that it properly applied the EF&I factor in accordance with the method established in the Department's Consolidated Arbitrations proceeding (Verizon Reply Brief at 9). Verizon further argues that in the Phase I Order, the Department recognized Verizon's use of the EF&I factor as an appropriate means of determining installation costs for relay rack equipment in connection with virtual collocation (Verizon Brief at 58, citing Phase I Order at 188; Verizon Reply Brief at 10).

b. CLECs

The CLECs argue that the \$1,215.00 fee for splitter installation is unreasonable (Exh. RLI/CVD-1, at 166; Vitts Brief at 10; Rhythms Brief at 103; Covad Brief at 27-28). The CLECs contend that the EF&I factor, when applied to the total investment for the splitter, dramatically over-estimates the real cost of installation (Vitts Brief at 10; Rhythms Brief at 103; Covad Brief at 27-28). According to the CLECs, this overstatement occurs for two reasons. First, the EF&I factor was derived from historical data, based on the company's historical plant, and not on the most efficient, forward-looking network (Exh.RLI-CVD-1,

at 154). As a result, the factor produces higher rates since it is, in a sense, inflated due to the high embedded costs characteristic of the historically functioning network (Exh. RLI/CVD-1, at 154; Vitts Brief at 10).

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The second reason that the use of the EF&I factor can over-estimate installation costs is that, according to the CLECs, this factor would have already been recovered when the CLEC paid for the new collocation arrangement (Exh. RLI/CVD-1, at 154; Rhythms Brief at 56, 96; Rhythms Reply Brief at 49). According to several CLECs, using Verizon's labor rate of \$51.70 per hour, Verizon's proposal assumes an installation time of 23.5 hours for a task that amounts to inserting (i.e., snapping or sliding) 24 splitter "cards" into slots and screwing in four screws (Exh. RLI/CVD-1, at 166-167; Rhythms Brief at 102; Covad Brief at 10; Vitts Brief at 10). The CLECs assert this operation can be accomplished in less than a minute (Rhythms Brief at 103). Moreover, because the CLECs did not contest the use of Verizon's EF&I methodology in other contexts, that does not mean these CLECs agree such methodology is appropriate in all contexts (Rhythms Reply Brief at 49-50). The CLECs recommend that the Department reject the proposed installation fee and adopt the CLECs' proposed rate of \$25.85 per splitter, which the CLECs assert is based on direct estimates of specific line sharing splitter installation work with an installation time of thirty minutes (Exh. RLI/CVD-1, at 171: Rhythms Brief at 103; Covad Brief at 28).⁷⁷

The proposed \$25.85 cost was derived by multiplying a per minute labor charge (\$0.86 per minute) by a time estimate provided by the CLECs (Exh, RLI-CVD-1, at 169).

3. Analysis and Findings

As Verizon notes, in the Consolidated Arbitrations, the Department approved an EF&I installation factor for UNEs of 45 percent of material investment. See Phase 4 Order; Phase 4-A Order; Phase 4-B Order. Since then, Verizon and the Department have used that same factor for installation costs for new UNEs. For example, in the Department's Phase 4-N Order, we rejected a request by AT&T to require Verizon to calculate a stand-alone work time estimate for connecting a dark fiber pair, finding that such an approach is "inconsistent with the Department's approved approach to TELRIC studies." Phase 4-N Order at 11-12 (citation omitted). Similar to the arguments the CLECs make here concerning the splitter installation charge, AT&T had argued that the general UNE installation factor was inappropriate for application to dark fiber, that the factor would produce inflated installation costs, and that the work involved was minimal. Id. at 11. As we did in the Phase 4-N Order, we find that the general UNE installation factor is appropriate for determining splitter installation costs, and, therefore, we approve Verizon's splitter installation charge. In this way, we maintain consistency among our various TELRIC analyses. However, we note that

Consolidated Arbitrations, D.P.U./D.T.E. 96-73/74, 96-75, 96-80/81, 96-83, 96-94-Phase 4-N (February 5, 1999) ("Phase 4-A Order").

Consolidated Arbitrations, D.P.U./D.T.E. 96-73/74, 96-75, 96-80/81, 96-83, 96-94-Phase 4-B (May 2, 1997) ("Phase 4-B Order") (approving NYNEX's February 14, 1997 UNE rates compliance filing).

Consolidated Arbitrations, D.P.U./D.T.E. 96-73/74, 96-75, 96-80/81, 96-83, 96-94-Phase 4-N (December 13, 1999) ("Phase 4-N Order").

the data supporting the factor may be getting stale. Therefore, the Department intends to review the UNE installation factor during its review of all TELRIC rates next year.

F. Splitter Monthly Administration and Support Charges

1. Introduction

Verizon proposes a monthly administration and support charge of \$24.85 per shelf for splitters placed in a CLEC's collocation cage, <u>i.e.</u>, Option A. Part M, Section 5.2.10. For Option C arrangements, Verizon proposes a monthly \$26.28 charge for maintenance, administration, and support. Part M, Section 5.2.10, page 6. According to Verizon, these charges support product management, negotiation of CLEC agreements, development of new CLEC products, improvement of existing CLEC services, and the development of marketing materials such as handbooks, training materials, and a web site (Exh. VZ-MA-2, at 55; Verizon Reply Brief at 12). To calculate these costs, Verizon applies an Annual Carrying Charge Factor ("ACCF") to the entire splitter investment (Exh. VZ-MA-2, at exh. II, Workpaper Section 1). The applicable ACCF is 0.0806 (<u>id.</u>).

2. <u>Positions of the Parties</u>

a. <u>Verizon</u>

Verizon contends that the ACCF has historically been acceptable to the Department as a method for allocating common overhead for Verizon's various products and services based on the underlying investment (Verizon Reply Brief at 11). Verizon argues that it is entitled to receive an "administrative and support charge" as a means of allocating the administrative and

The installation charge calculated using the EF&I factor of 0.45 is also included in the investment total.

marketing costs that exist under both Options A and C (id.). Verizon believes that it is entitled to these charges because the CLEC is the "cost-causer," and argues that to exempt line sharing CLECs from these costs would be discriminatory since the ACCF is included in rates paid by non-line sharing CLECs (id. at 13).

b. CLECs

The CLECs argue that the administration and support fee should not apply to Option A splitter configurations (Exh. RLI/CVD-1, at 157; DBC Brief at 30; Rhythms Reply Brief at 47). The CLECs contend that because Verizon does not own, install, or maintain the investment (e.g., the splitter) in an Option A environment, it is inappropriate to apply the ACCF (Exh. RLI/CVD-1, at 158; Rhythms Brief at 97; Vitts Brief at 11). The CLECs urge the Department to follow the lead of the NYPSC and reject Verizon's imposition of additional maintenance or overhead-related recovery based on CLEC investment within their own collocation arrangements (Rhythms Brief at 98). With regard to Option C, the CLECs suggest that the Department reject Verizon's proposed monthly charges and adopt tariff charges as calculated by the CLECs (Exh. RLI/CVD-1, at 160; Rhythms Brief at 98; Covad Brief at 29-30; Vitts Brief at 11; Rhythms Reply Brief at 47-48). Alternatively, the CLECs suggest that the Department direct Verizon to develop a new, lower charge for maintenance, administration, and support based on forward-looking experience with line sharing applicable only in Option C environments (Rhythms Brief at 99).

The charge proposed by the CLECs is a monthly recurring per-line splitter charge of \$0.09 for a CLEC-owned splitter (Exh. RLI/CVD-1, at 9; Rhythms Brief at 99 n.384).

3. Analysis and Findings

The Department agrees with Verizon that a monthly administration and support charge for Option A and Option C is reasonable; however, as explained below, the Department finds that Verizon's calculation of this charge for Option A is unreasonable. Pursuant to the FCC's TELRIC method, ILECs are entitled to recover a "reasonable allocation of forward-looking common costs" in their provision of UNEs. Local Competition First Report and Order at ¶ 682. CLEC arguments that overhead costs are not applicable to Option A, where CLECs own the splitters, miss the point. Overhead costs, by definition, are not attributable to a particular service or investment. Therefore, ownership of equipment is irrelevant to the appropriate recovery of these costs.

However, in calculating the administration and support charge, Verizon included the installation investment of \$1,215.00 as part of the entire splitter investment to which the ACCF is applied to derive the rate. This is discriminatory to CLECs that install their own splitters under Option A. Therefore, in its compliance filing, Verizon shall recalculate the administration and support charge for Option A by removing the splitter installation investment from the entire splitter investment to which the ACCF is applied to derive the rate.

G. Splitter Equipment Support Charge

1. Introduction

In Option C, the CLEC's splitter is installed in Verizon's space and on Verizon's relay rack equipment.⁸³ In consideration for the provision of this equipment and space, Verizon

In an Option A environment, the CLEC provides its own space and rack support for the (continued...)

proposes a recurring splitter equipment support charge that varies for each of the geographic zones established by the Department in its <u>Phase 4 Order</u>. The proposed splitter support charges are as follows: \$3.94 per shelf for Metro space; \$3.38 per shelf for Urban Space; \$3.34 per shelf for Suburban space; and \$3.69 per shelf for Rural Space. Part M Section 5.3.13, Page 6.

2. Positions of the Parties

a. Verizon

Verizon argues that the splitter equipment support charges are proper because they are based on the "virtual collocation, relay rack per full shelf" cost adjudicated and tariffed in its April 21, 2000 Virtual Collocation Compliance Filing (Exh. VZ-MA-2, at 57, as corrected by Verizon on August 10, 2000). Verizon asserts that since some splitters are purchased in shelves, the recurring charges for splitter support are appropriately developed on a per shelf, not on a per line, basis, as suggested by the CLECs (Verizon Reply Brief at 12).

b. CLECs

Rhythms asserts that the splitter equipment support charges proposed by Verizon are unduly cumbersome and will not provide CLECs with sufficient flexibility to respond to market forces (Rhythms Brief at 94). The CLECs request that the Department reject Verizon's proposed charges and instead adopt a monthly recurring per line, rather than per splitter shelf,

^{83(...}continued)

splitter. Splitter equipment and support charges are not assessed on a CLEC opting for an Option A configuration.

charge of \$0.09 for a CLEC-owned splitter under Option C (Exh. RLI/CVD-1, at 164; Rhythms Brief at 94).

3. Analysis and Findings

The Department rejects the per line tariff proposals of the CLECs. The Department finds that the splitter equipment support charge, as proposed by Verizon, is just and reasonable. In Section III.C, the Department rejected the CLECs request to direct Verizon for access to Verizon's splitters on a per line or per shelf basis. Under the Option C scenario, Verizon is providing CLECs with access to its floor space and access to its relay racks in one-shelf increments, not on a per line basis. Based upon our earlier finding in Section III.C, it is appropriate and reasonable that we permit Verizon to recover its costs for providing CLECs with such access.

H. Cross-Connects

1. <u>Introduction</u>

Two service access connection ("SAC") charges are proposed by Verizon for an Option C scenario. The first SAC is the connection of the shared voice/data line to the end-user outside plant cable and pair to a termination block located on the MDF (Exh. VZ-MA-2, at 59, as corrected by Verizon on August 10, 2000). The second SAC is the cable connection of the splitter voice port to a termination block located on the MDF (id., as corrected by Verizon on August 10, 2000). According to Verizon, the cross-connection charges are derived from an

earlier filed cost study for a two-wire digital link, submitted to the Department on February 9, 2000⁸⁴ (id. at 58). The proposed charge is \$11.17 per link. Part M, Section 1, page 12.

2. Positions of the Parties

a. Verizon

According to Verizon, the FCC noted that for a line sharing arrangement, if a splitter is not located in the ILEC's MDF, the ILEC should be permitted to adjust the cross-connection charges to reflect any cost differences arising from the different location of the splitter, compared to the MDF (Verizon Brief at 59, citing Line Sharing Order at ¶ 145). Verizon argues that its proposal complies with the FCC's Order and notes that, as mentioned above, there is no NEBS-compliant MDF mountable splitter presently on the market (id. at 59-60). Verizon states that use of a rack-mounted splitter requires only two frame cross-connects and a reasonable amount of cabling for connecting the splitter (id. at 59). According to Verizon, one SAC cable must connect the splitter to the MDF, and the second SAC cable runs from the collocation area to the splitter and onto the MDF (VZ-MA-3, at 32; Tr. at 789).

In addition to its NEBS-compliance argument against MDF-mounted splitters, Verizon argues that its frames have limited space, which Verizon must conserve to provide basic local exchange service (Verizon Brief at 60). In addition, Verizon notes that a federal appellate court agreed with Verizon that an ILEC, acting as a landlord, may determine where in its central offices a CLEC can place its equipment (id., citations omitted). Finally, Verizon

The Department approved this filing in Phase 4-F of the <u>Consolidated Arbitrations</u>. <u>Consolidated Arbitrations</u>, D.P.U./D.T.E. 96-73/74, 96-75, 96-80/81, 96-83, 96-94-Phase 4-F (September 15, 2000).

argues that contrary to statements made by Rhythms and Covad, a CLEC's existing cross-connections do not provide the necessary termination for line sharing (Verizon Brief at 69).

b. <u>CLECs</u>

The CLECs maintain that there should be only one SAC or tie cable charge (Exh. RLI/CVD-1, at 113; Tr. at 593; DBC Brief at 35). The CLECs argue that the most efficient network design would have the splitter mounted directly to the MDF through a block on the horizontal side of the MDF (Exh. RLI/CVD-1, at 60; Exh. RLI/CVD-1, at 113; Tr. at 780, 792; Vitts Brief at 8). According to Rhythms and Covad, with pre-connection to the data side of the splitters at the MDF and to a CLEC's collocated DSLAM via a cross-connect tie cable, for line-sharing would be possible with just two additional jumpers (Exh. RLI/CVD-1, at 60). According to these CLECs, one jumper would connect the end-user's line on the block to the splitter and the second jumper would run from the splitter to the office equipment of the customer (id.; Tr. at 780).

Regardless of whether Verizon permits splitter mounting on its MDF, Rhythms argues that Verizon should be required to price line sharing elements based upon the efficient splitter placement at the MDF (Rhythms Reply Brief at 51). According to Rhythms, whether Verizon is willing to permit MDF-mounted splitters in its central offices is not a necessary precondition to the pricing decision (id.). Rather, Rhythms argues, pricing based on the least cost option is a fundamental TELRIC principle (id.).

3. Analysis and Findings

The Department has previously noted that a particular technology should be in common use in order for it to be included as a network assumption in a TELRIC analysis. See Phase 4

Order, at 14. In Section III.C of this Order, the Department did not direct Verizon to permit MDF-mounted splitters at this time, for the reason that there are currently no NEBS-compliant MDF-mounted splitters available that are compatible with Verizon's frame. Therefore, for purposes of calculating TELRIC, we assume a network that does not include MDF-mounted splitters. Based upon this earlier decision, we approve Verizon's proposal to assess fees for two SAC cables as part of each line sharing arrangement, because the two SAC fees accurately match the costs of a line sharing arrangement without MDF-mounted splitters. Even if there were NEBS-compliant MDF-mounted splitters available, we are not persuaded by the limited record on this issue that MDF-mounted splitters are any less complicated or, more importantly, any more cost efficient than the configuration proposed by Verizon (see RR-DTE-14; Tr. at 780-782, 788-793).

I. POT Bay/Splitter Termination Charge

1. Introduction

Verizon's proposed tariff assesses a recurring monthly fee for two two-wire voice grade POT Bay terminations for each line sharing arrangement. Part E, Section 2.6.4.A. Verizon proposes a charge of \$0.08 per termination for a total fee of \$0.16 for each line sharing arrangement (see Exh. VZ-MA 3, attachment 1).

Rhythms does not propose an alternative rate to Verizon's proposed SAC cable charge but, rather, disputes Verizon's proposed splitter configuration that results in the two SAC cable charges (Rhythms Brief at 93-94).

2. <u>Positions of the Parties</u>

a. Verizon

According to Verizon, the POT Bay is the demarcation point between the CLEC's network and Verizon's network, and there are two POT Bay terminations for each line sharing arrangement (Verizon Reply Brief at 69). Verizon argues that the POT Bay provides an appropriate point for testing and isolating troubles on each carrier's network; therefore, a fee for two two-wire voice grade POT Bay terminations for each line sharing arrangement is appropriate.

;

b. <u>CLECs</u>

Rhythms and Covad argue that direct connection to Verizon's network at the MDF remains technically feasible, making a POT Bay unnecessary in a line sharing arrangement (Rhythms Brief at 91). According to Rhythms, the POT Bay serves the same function as an MDF -- to provide a point of demarcation between Verizon's and the CLEC's facilities (id.). Rhythms contends that requiring CLECs to use the POT Bay only serves to increase unnecessarily collocators' expenses and needlessly reduces the amount of space available within the central office (id.). For these reasons, Rhythms urges that the Department make the POT Bay charge optional so that it would be imposed only on those CLECs who wish to terminate at that location (id., citing Tr. at 583).

3. Analysis and Findings

The Department finds in favor of Verizon. We agree with Verizon that the appropriate termination point for line sharing arrangements is the POT Bay. Also, use of the POT Bay is consistent with the termination point for access to other UNEs. See Tariff No. 17, Part A,

Section 1.3.2 (defining POT Bay as "The intermediate distributing frame system which serves as the point of demarcation for physically collocated interconnection"); Part E, Section 2.2.3.B (stating that CLECs must choose one of three POT Bay options regarding termination of their facilities at multiplexing node); see also Greater Media Arbitration, 99-52, at 12-15 (September 24, 1999). Verizon provided sufficient cost support for its proposed POT Bay termination charges, and no party specifically challenged the level of these charges, so they are approved.

J. <u>Miscellaneous Costs and Rates Issues</u>

1. Request to Make Permanent Verizon's Proposed Zero Loop Charge

Verizon has not proposed a charge for access to the high-bandwidth portion of a shared loop facility, though it indicates that it reserves the right to do so in the future (Verizon Brief at 45). Rhythms and Vitts argue that the Department should establish a permanent recurring charge of \$0.00 for the data portion of a line-shared loop (Vitts at 7-8; Rhythms at 64-69). The Department denies the CLECs' request. The rates set forth in Department-approved tariffs are never "permanent" in the sense of unchanging (as opposed to "interim"). Rather, a carrier could at any time petition the Department to modify current rates based upon a new or revised cost study. Should Verizon file a proposed charge for access to the high-bandwidth portion of a shared loop together with a cost study, the Department will docket Verizon's proposal and carriers such as Vitts and Rhythms will have the opportunity at that time to argue why Verizon's proposal is unreasonable and should be rejected by the Department.

2. Retroactive Recovery of Costs to Enhance Verizon's OSS

Similar to its position with respect to loop allocation costs, Verizon has not proposed a charge for the OSS upgrades, discussed earlier, in this Order but proposes to set a \$0.00 "placeholder" rate for OSS cost recovery, subject to a retroactive true-up (Verizon Brief at 45). Vitts and Rhythms oppose Verizon's request to make the costs for the OSS enhancements retroactive (Vitts Brief at 9; Rhythms Brief at 81-82). According to Rhythms, it is inappropriate for CLECs to be charged for OSS upgrades if the CLECs have not had the benefits of the upgrades but instead have had to deal with inferior manual order processing (Rhythms Brief at 82).

The Department will not, in this Order, prohibit Verizon from seeking recovery of its costs to enhance its OSS. When Verizon files a revised tariff, supported by a cost study, to address its cost recovery for the OSS upgrades, the Department then will consider the appropriateness of applying retroactively these charges to CLECs. Again, Vitts and Rhythms will be afforded the opportunity at that time to present their case why retroactive cost recovery is unreasonable.

V. ORDER

Accordingly, after due notice, hearing, and consideration, it is

ORDERED: That the Compliance Filings for Tariff No. 17 of Verizon New England, Inc. d/b/a Verizon Massachusetts, filed with the Department on May 5, 2000 and June 14, 2000 for effect on June 4, 2000 and July 14, 2000, be and hereby are <u>APPROVED</u> in part and <u>DENIED</u> in part; and it is

FURTHER ORDERED: That Verizon shall file, within four weeks of the date of this Order, a compliance tariff consistent with the findings herein, and it is

FURTHER ORDERED: That Verizon comply with all other directives contained herein.

By Order of the Department,

James Connelly, Chairman

W. Robert Keating, Commissioner

Paul B. Vasington, Commissioner

Tuu D. Vuonigion, Compacioner

Fugene A Sullivan, Ir. Commissioner

Deirdre K. Manning, Commissioner

A true copy

Attest

MARY L. COTTRELL

Secretary

Appeal as to matters of law from any final decision, order or ruling of the Commission may be taken to the Supreme Judicial Court by an aggrieved party in interest by the filing of a written petition praying that the Order of the Commission be modified or set aside in whole or in part. Such petition for appeal shall be filed with the Secretary of the Commission within twenty days after the date of service of the decision, order or ruling of the Commission, or within such further time as the Commission may allow upon request filed prior to the expiration of twenty days after the date of service of said decision, order or ruling. Within ten days after such petition has been filed, the appealing party shall enter the appeal in the Supreme Judicial Court sitting in Suffolk County by filing a copy thereof with the Clerk of said Court. (Sec. 5, Chapter 25, G.L. Ter. Ed., as most recently amended by Chapter 485 of the Acts of 1971).